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# **EMERALD ASH BORER**

## **Management Alternatives & Impacts**

March 25, 2013

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- **Further Consideration of Managed Decline Scenarios**
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  - Option B – Preserve trees > 6" dia\*
- **Village & Neighborhood Impact**
  - Mature subdivision
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  - New subdivision
- **Keys for success**
  - Allow HOA/Homeowner action
  - Public Information
  - Utilization of DPW staff
  - Uncertainty, Flexibility & Responsiveness



*\* And in good or better condition*



# 2008 – 12 Management Program

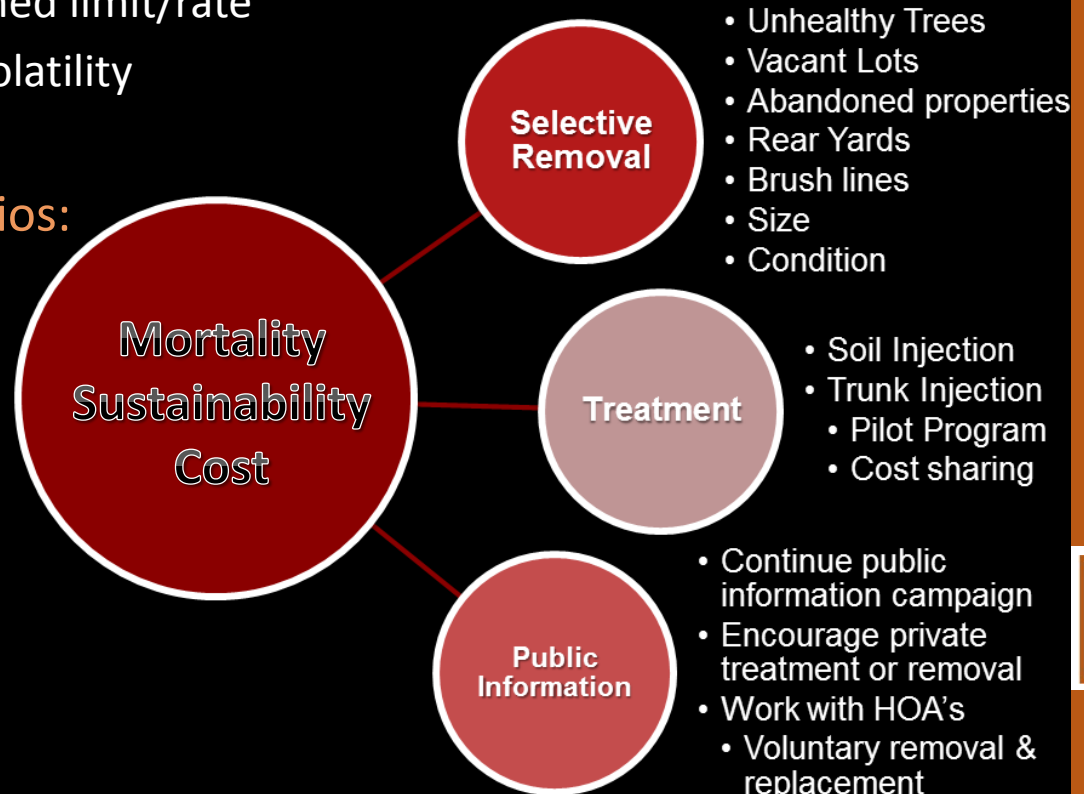
- The success of the 2008-12 EAB program now provides the Village with the opportunity to make decisions that would otherwise not be possible.

- The objective of this process is to:

- Control mortality to defined limit/rate
- Restrain costs and cost volatility
- Improve forest diversity

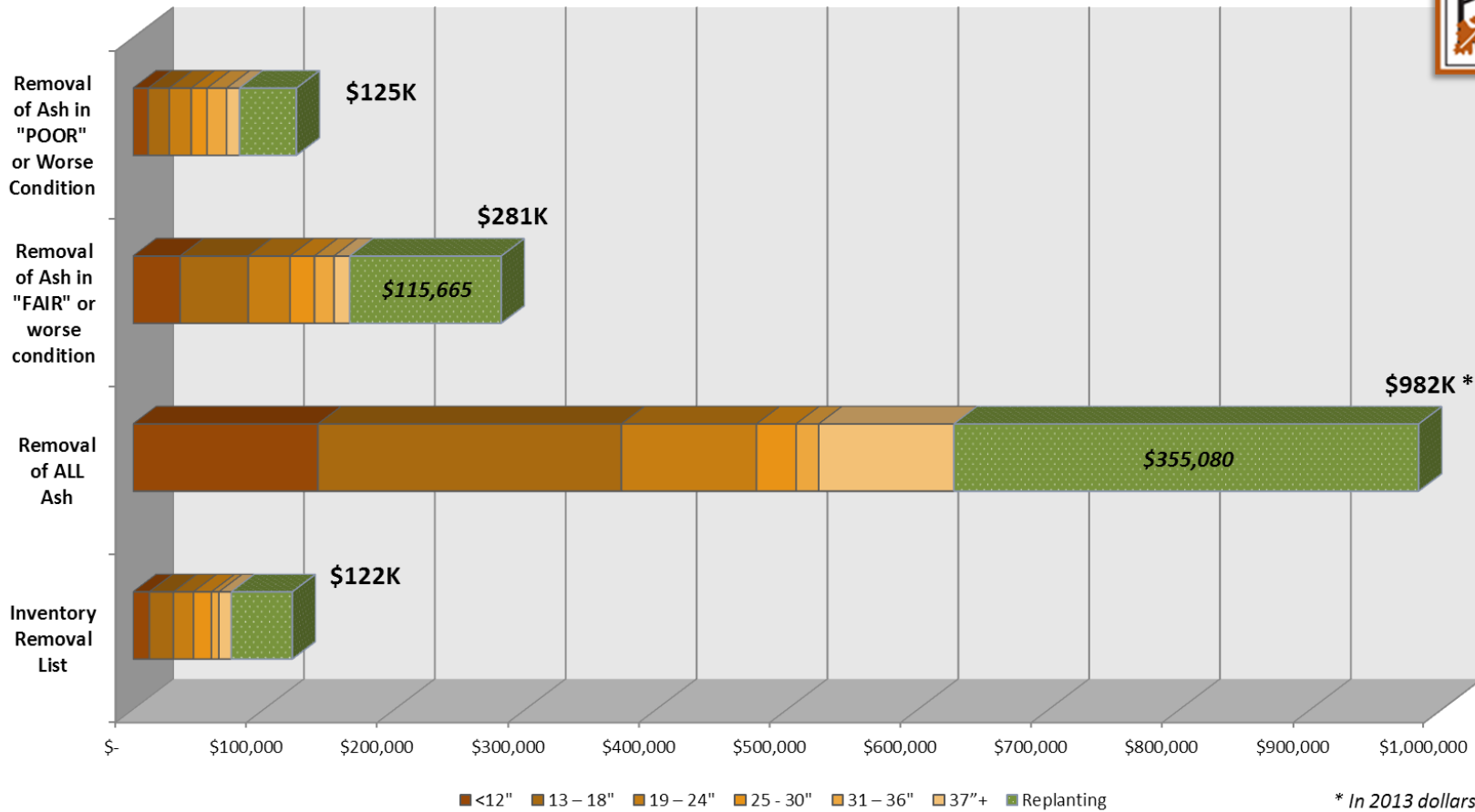
- **Moving Forward / Scenarios:**

- Removal
- Treatment
- Managed Decline



# Removal Scenario

Cost by Removal Scenario



# Removal Scenario

## ■ Impact to Urban Forest (diversity)

- Removal of nearly 20% of urban forest
- Will allow the Village to reduce the Ash population to 5% or less genus representation.

## ■ Impact to aesthetics

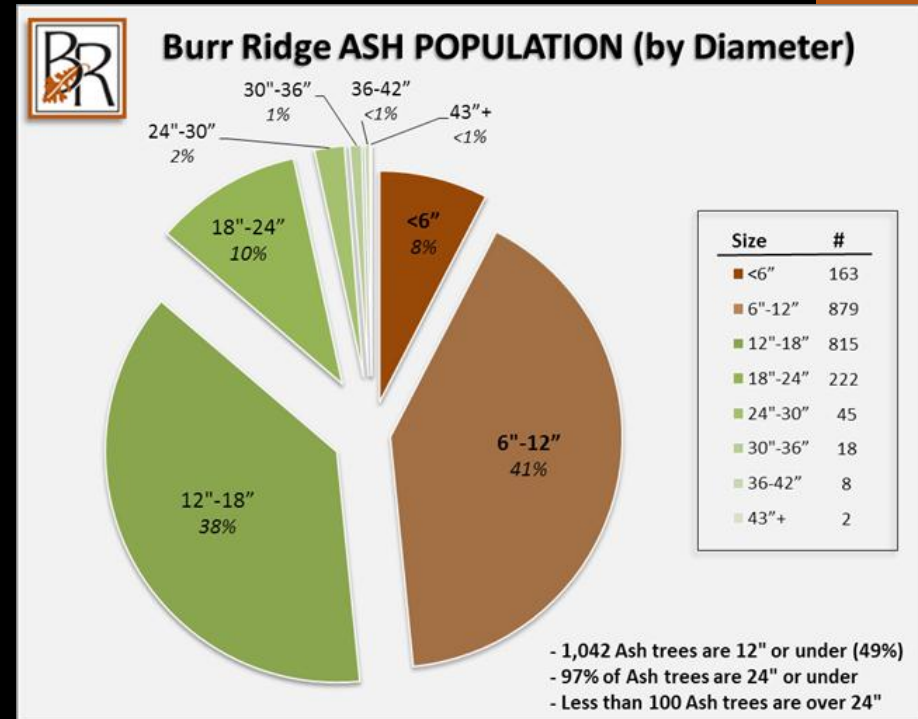
- Would have an extremely negatively impact on aesthetics in subdivisions with large ash populations.

## ■ Initial Cost (\$982K)

- Substantial initial removal cost (\$627K)
- Substantial replanting cost (\$355K)
- May be possible to spread removal/replacement over several years
- Selective removal would have markedly lower cost
- Debt may be required to finance work

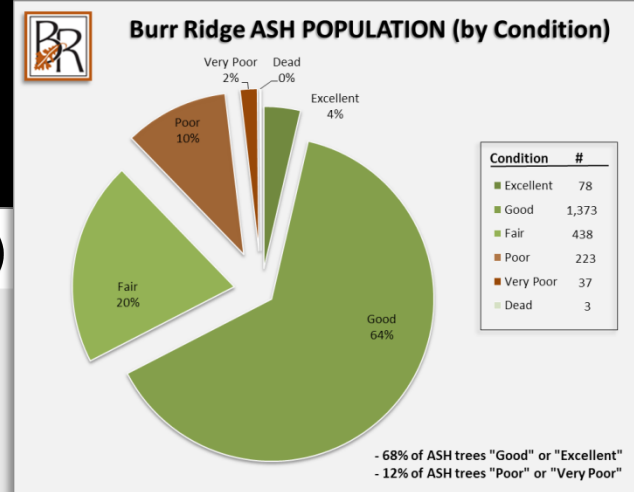
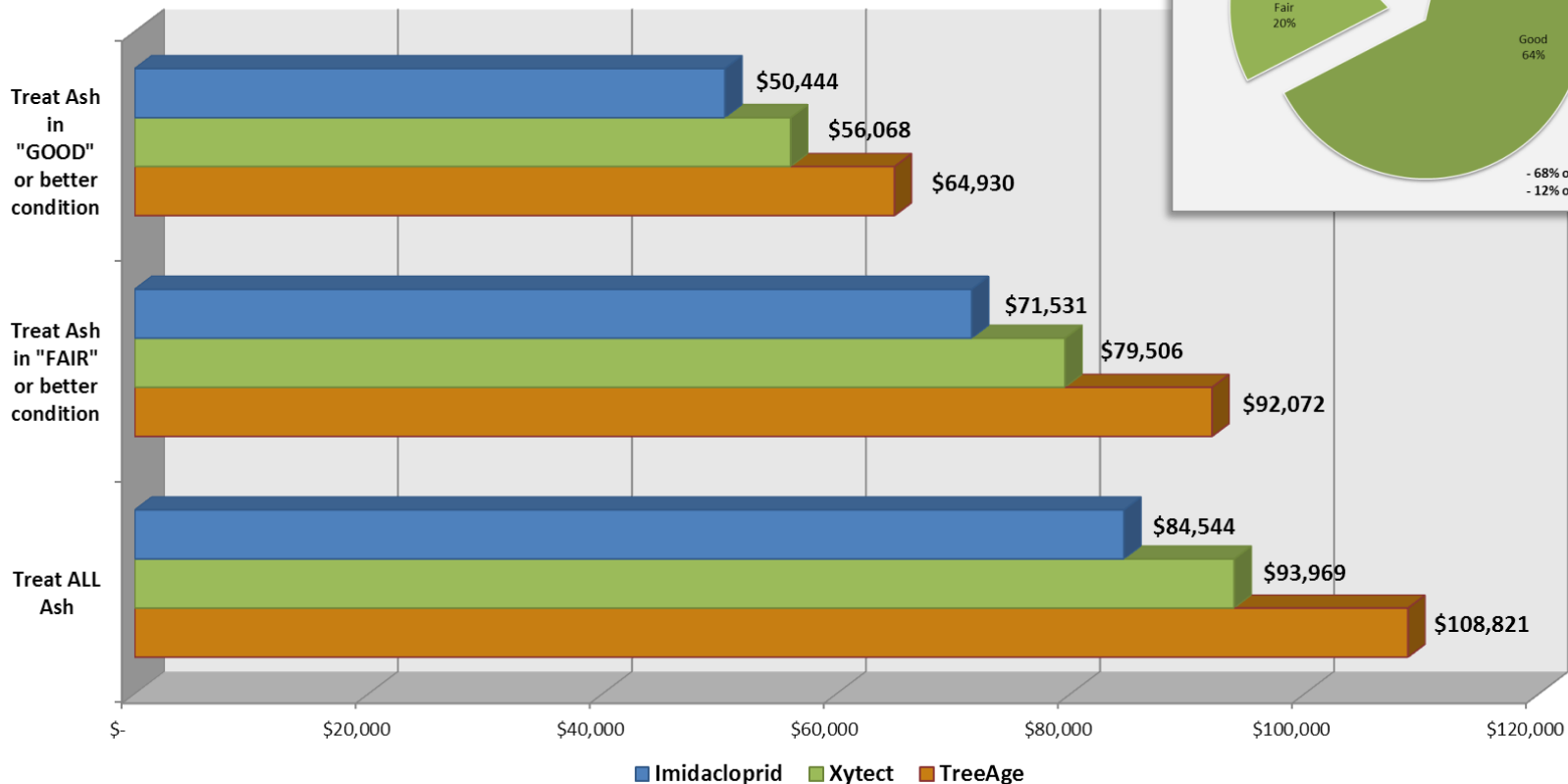
## ■ Management Control / Uncertainty

- Good management control over program if expedited.
- Poor management control over program if extended over several years (mortality uncertainty).



# Treatment Scenario

**Cost by Treatment Scenario (Annual)**



# Treatment Scenario

## ■ Impact to Urban Forest (diversity)

- Urban forest likely to remain in existing or similar condition – Ash would remain over represented.
- Decrease opportunity to improve diversity of urban forest.

## ■ Impact to aesthetics

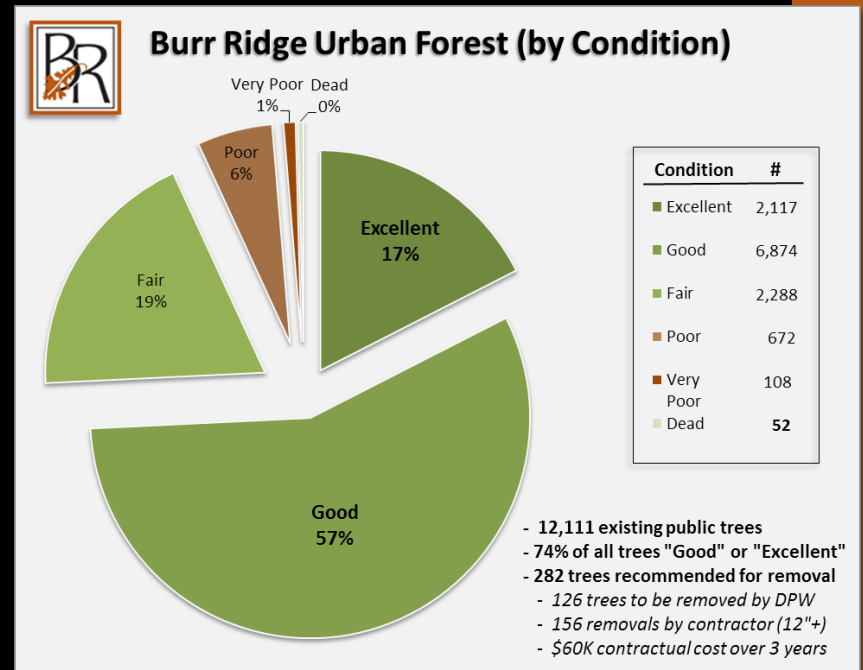
- Most likely to preserve the existing character of neighborhood

## ■ Initial Cost (\$50K - \$108K / yr)

- Variable depending upon number treated
- Variable depending upon treatment protocol (imidicloprid/Xytect/TreeAge)
- Treatment must continue for extended period to preserve ash population.
- If treatment ceases, a large removal and replacement cost will be expected.

## ■ Management Control / Uncertainty

- Uncertainty regarding long-term efficacy of treatment – future costs unknown
- Likely that mortality will still occur, will need to be addressed with removal and replacement – likely additional annual costs.

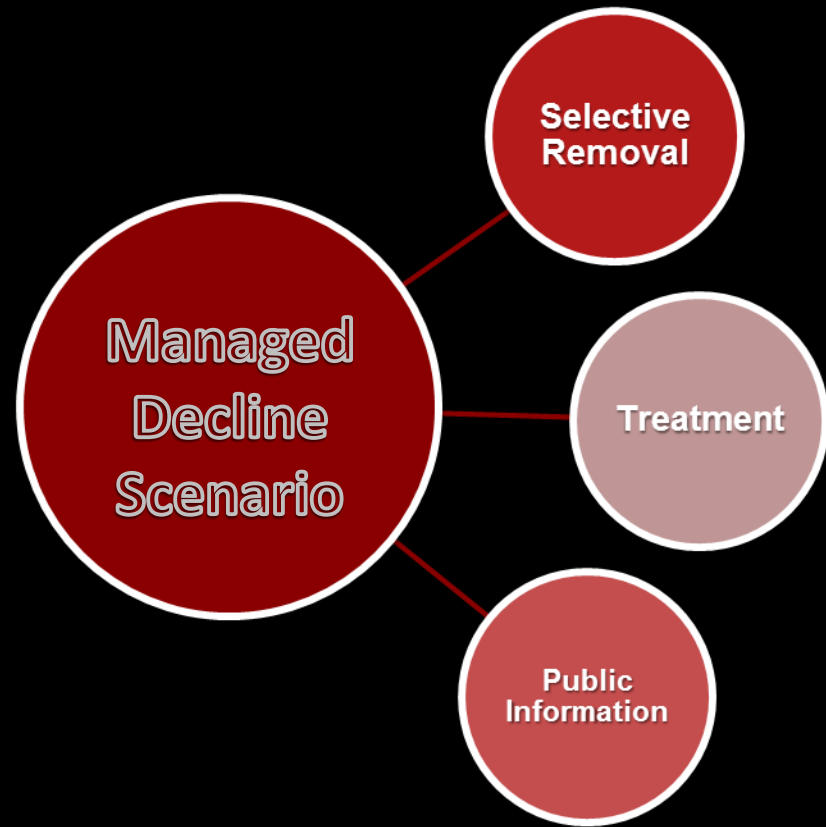


# Managed Decline Scenario

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## ■ Objective:

- Combine the most effective components of the removal and treatment scenarios
- Constrain long-term costs
- Reduce potential for cost volatility
- Maximize potential for flexible, nimble management
- Include a robust public information campaign; engage residents and HOA's
- Progress towards a more diverse urban forest



# Managed Decline Scenario - A

## ■ Treatment:

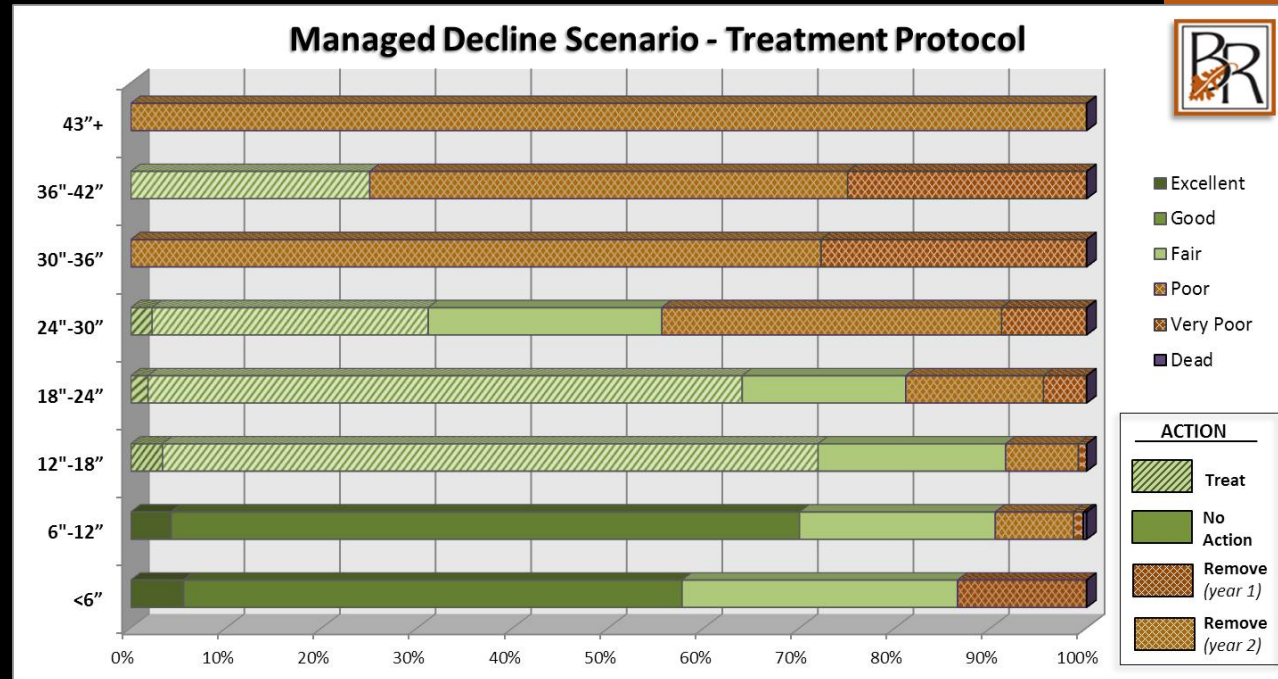
- Treat ash trees greater than **12"** in diameter; and
- in "Good" or better condition

## ■ Removal:

- Remove trees currently in "Poor" or worse condition
- 2-3 year removal cycle
- Selective removal of ash with dia. less than 8" by DPW forces (*vacant lots, commercial properties, etc.*)

## ■ No Action:

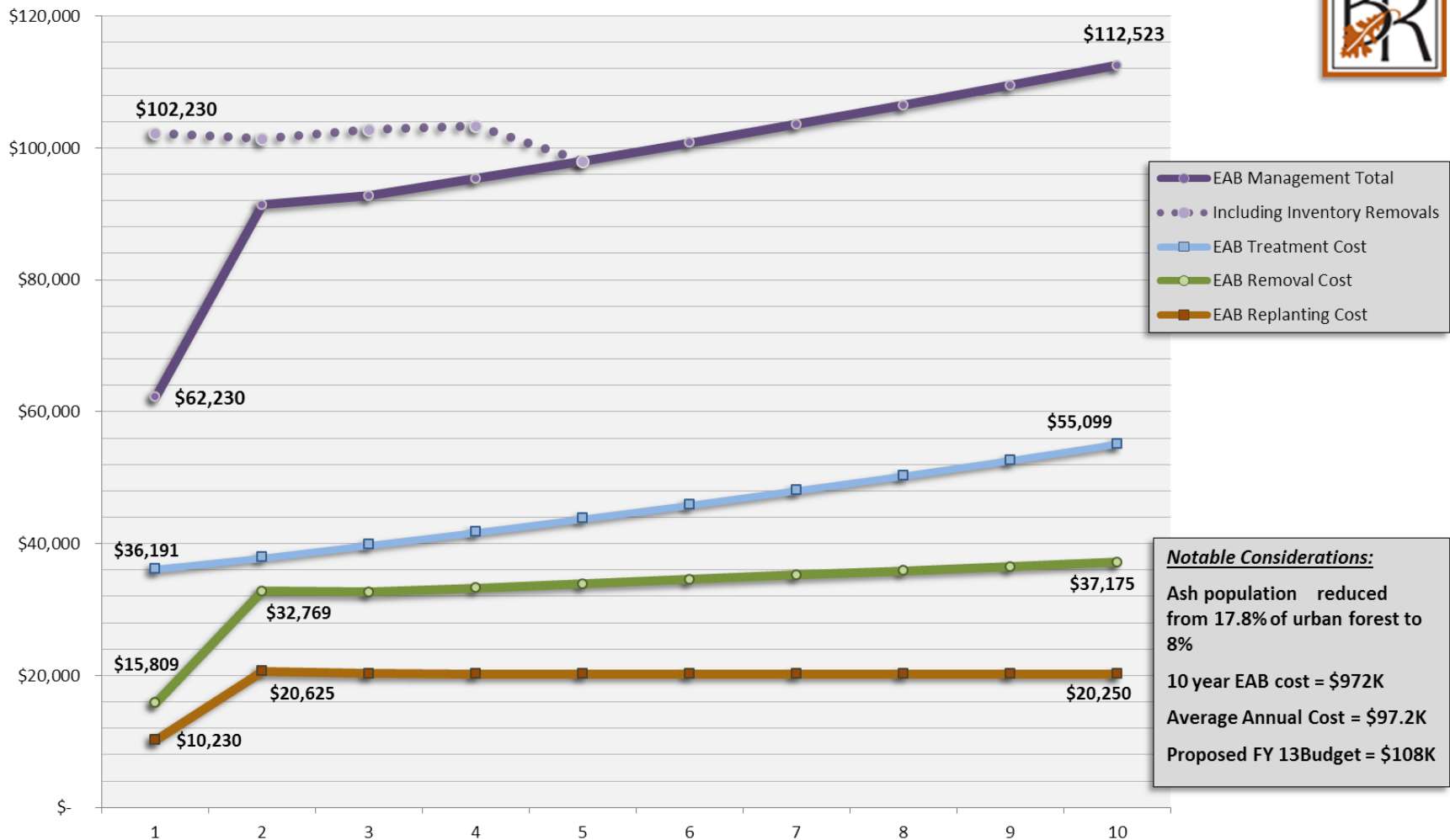
- No action taken on remainder of trees (trees in "Fair" condition, trees below 12" dbh).
- Removal & replacement when mortality occurs and conditions warrant.



*Note: it is assumed that DPW would replant 50 trees annually, the remainder would be planted contractually. Replacement rate estimated at 66%.*

# Managed Decline Scenario - A

Managed Decline Costs 2013 - 2022



# Managed Decline Scenario - B

## ■ Treatment:

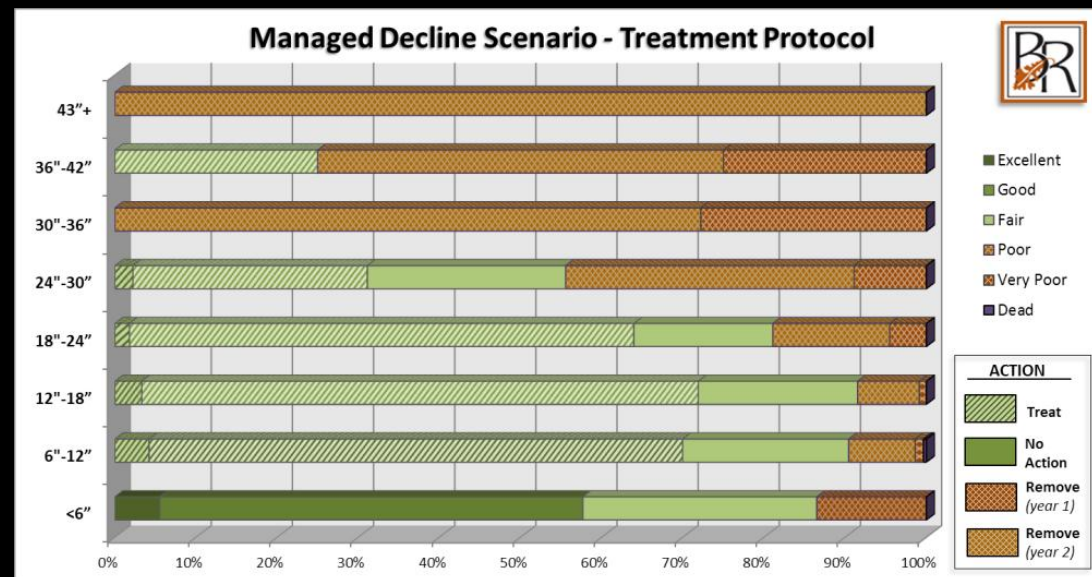
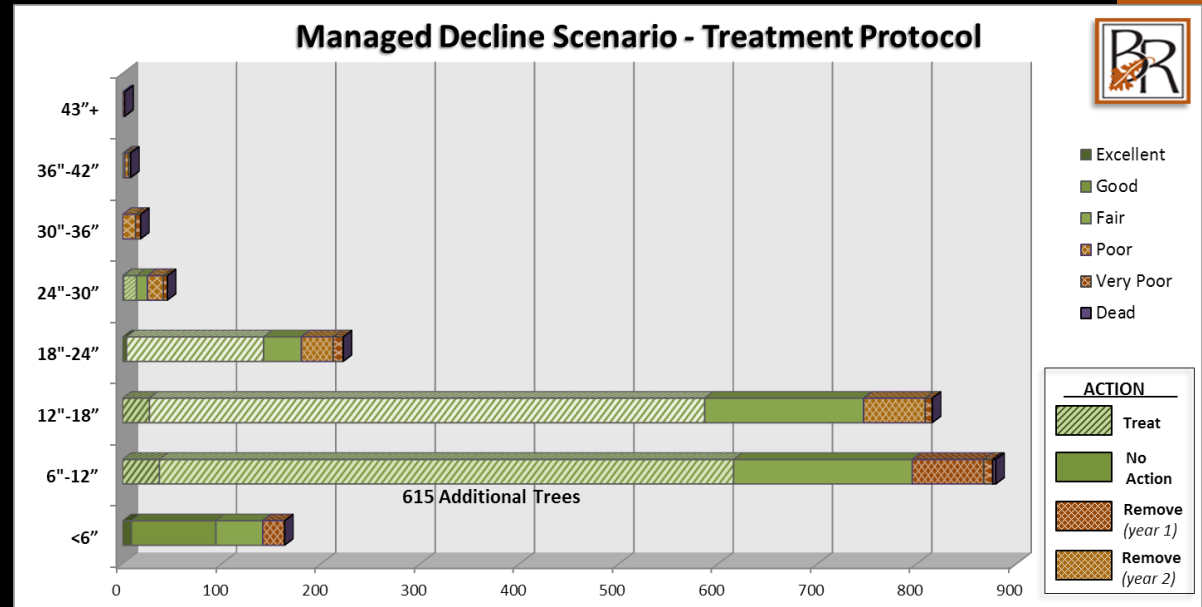
- Treat ash trees greater than 6" in diameter; and
- in "Good" or better condition (615 additional)

## ■ Removal:

- Remove trees currently in "Poor" or worse condition
- 2-3 year removal cycle
- Selective removal of ash with dia. less than 8" by DPW forces (*vacant lots, commercial properties, etc.*)

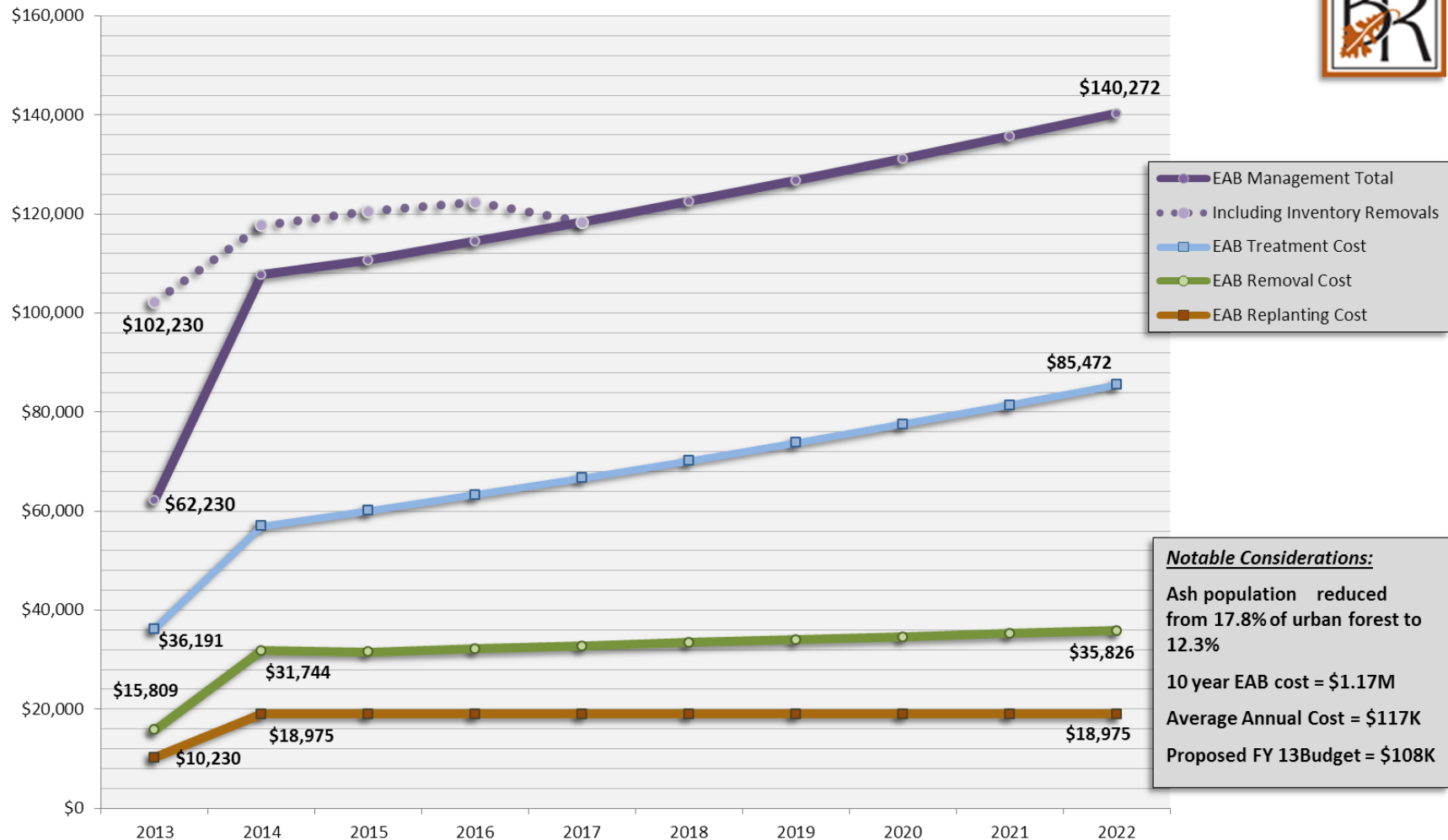
## ■ No Action:

- No action taken on remainder of trees (trees in "Fair" condition, trees below 6" dbh).
- Removal & replacement when mortality occurs and conditions warrant.



# Managed Decline Scenario - B

Managed Decline Costs 2013 - 2022 - Option B



# Summary Comparison



## Scenario Costs: 2013 - 2024

### Ten Year Costs:

Removal: \$ 1,081,000

Treatment: \$ 1,042,409

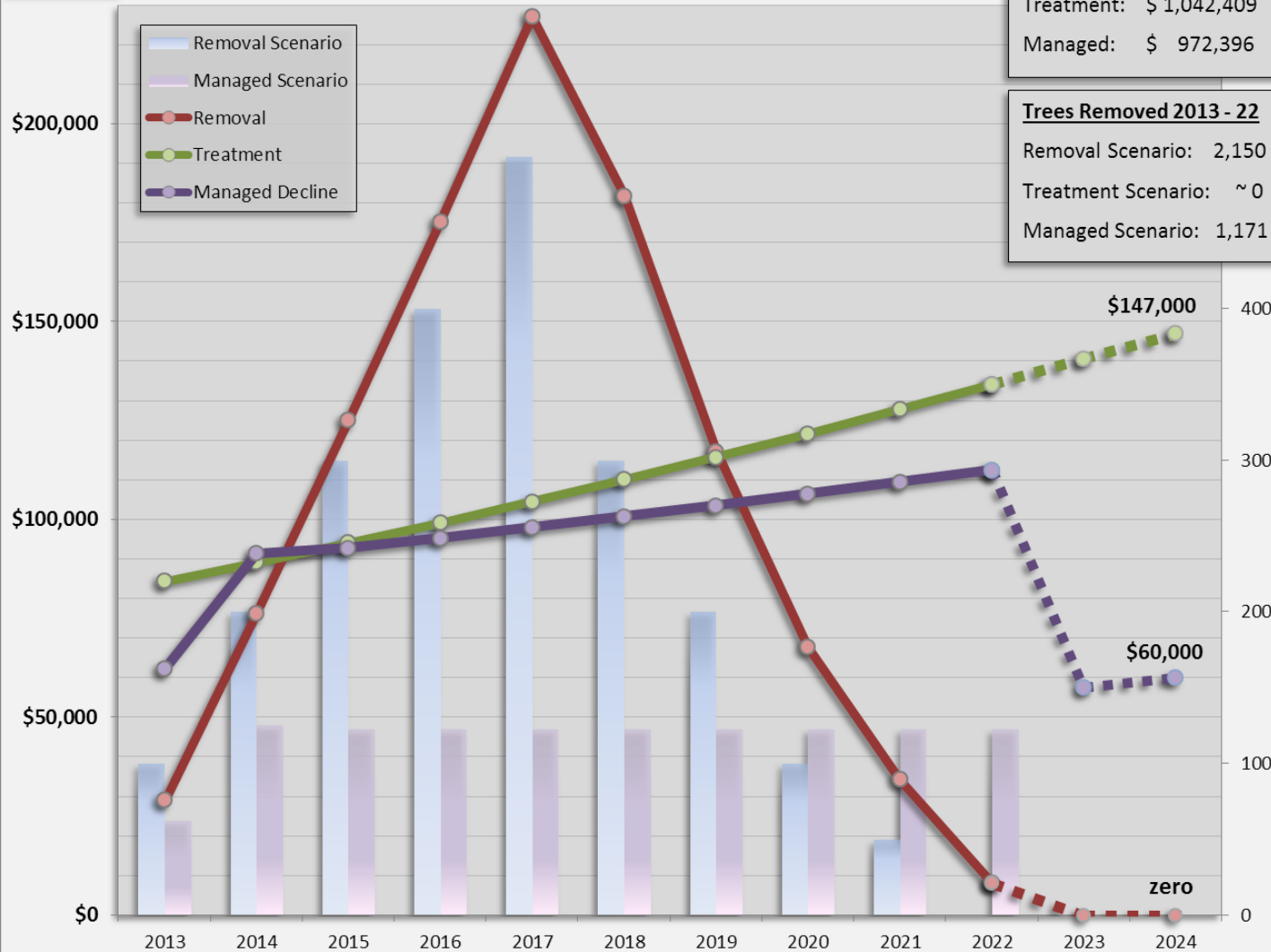
Managed: \$ 972,396

### Trees Removed 2013 - 22

Removal Scenario: 2,150

Treatment Scenario: ~ 0

Managed Scenario: 1,171



# Mature Subdivision Impact

## ■ Heatherfields (1988)

- Infested since before 2008
- Total Trees 200
- Existing Ash 72
- Under 12" 6 no action
- Over 12", < good cond. 29 no action
- Over 12", > good cond. 37 treat

## ■ HOA coordination

- Expanded treatment (HOA)
- Staged removals
- Replanting plan



Typical Ash, Heatherfields Subdivision



# Intermediate Subdivision Impact

- Fieldstone, 1993 (20 years)
  - Total Trees 563
  - Existing Ash 72
  - Under 12" 57 no action
  - Over 12", < good cond. 6 no action
  - Over 12", > good cond. 9 treat
- HOA coordination
  - Expanded treatment
  - Staged removals
  - Replanting plan



Typical Ash, Fieldstone Subdivision



# New Subdivision Impact

- Highland Fields, 2000 (13 years)
  - Total Trees 200
  - Existing Ash 83
  - Under 12" 83 no action
  - Over 12", < good cond. 0 no action
  - Over 12", > good cond. 0 treat
- HOA coordination
  - Expanded treatment
  - Staged removals
  - Replanting plan

Ash less than 12" dia., and larger  
Ash in "FAIR" or worse condition



Typical Ash, Highland Fields Subdivision

83/200

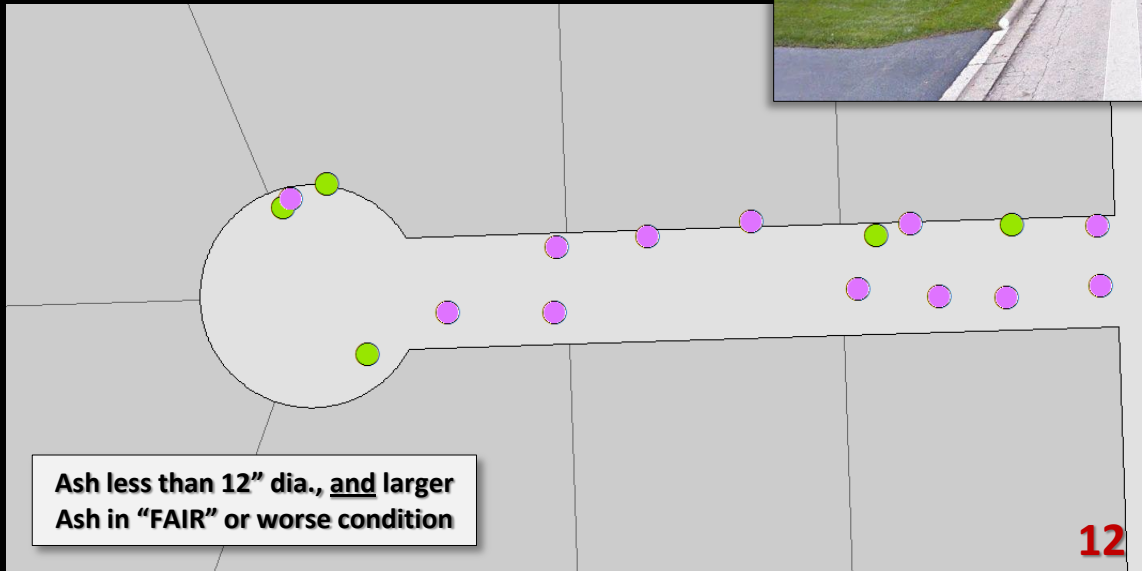


# Unique Cases Impact

- Peppermill Ct, 1979 (34 years)
  - Total trees 17
  - Total Ash 12
  - Over 12", < good cond. **12**
  - Trees Remaining **5**
- HOA coordination
  - Expanded treatment
  - Staged removals
  - Replanting plan

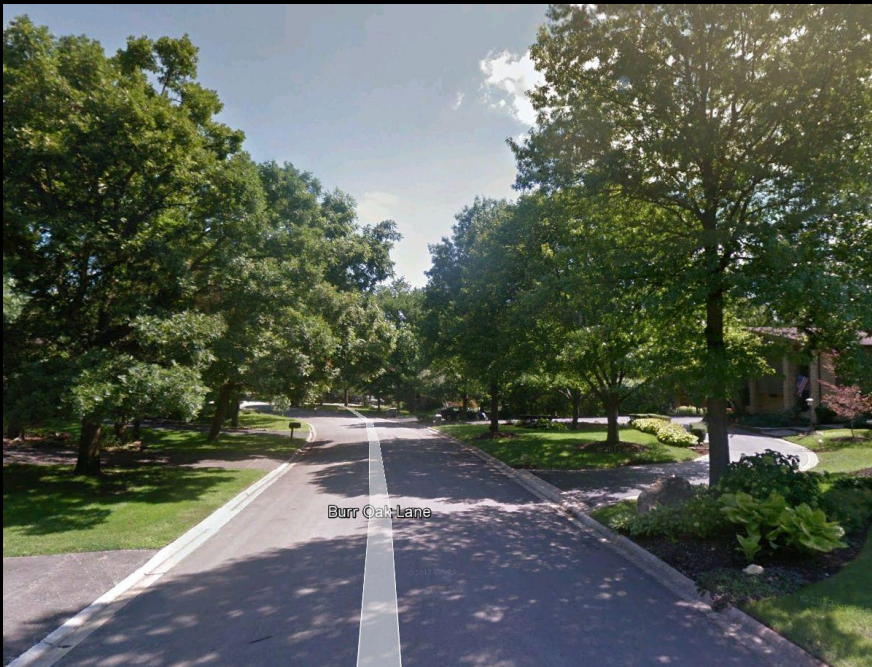


Typical Ash, Peppermill Court

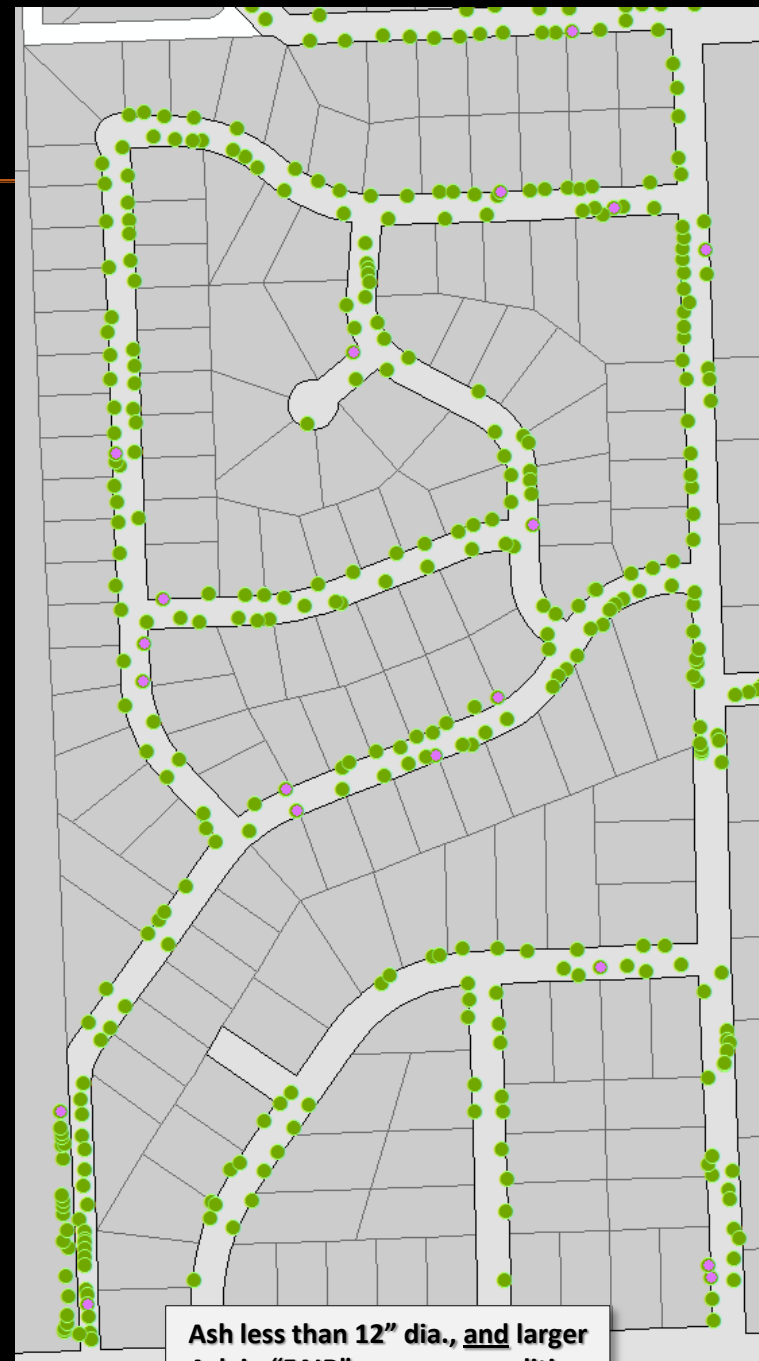


# Low Impact Areas

- It is not all bad...
  - Despite the previously indicated worst case scenarios, there are many areas which will have very little impact from EAB (*Burr Oaks Glen North shown*)

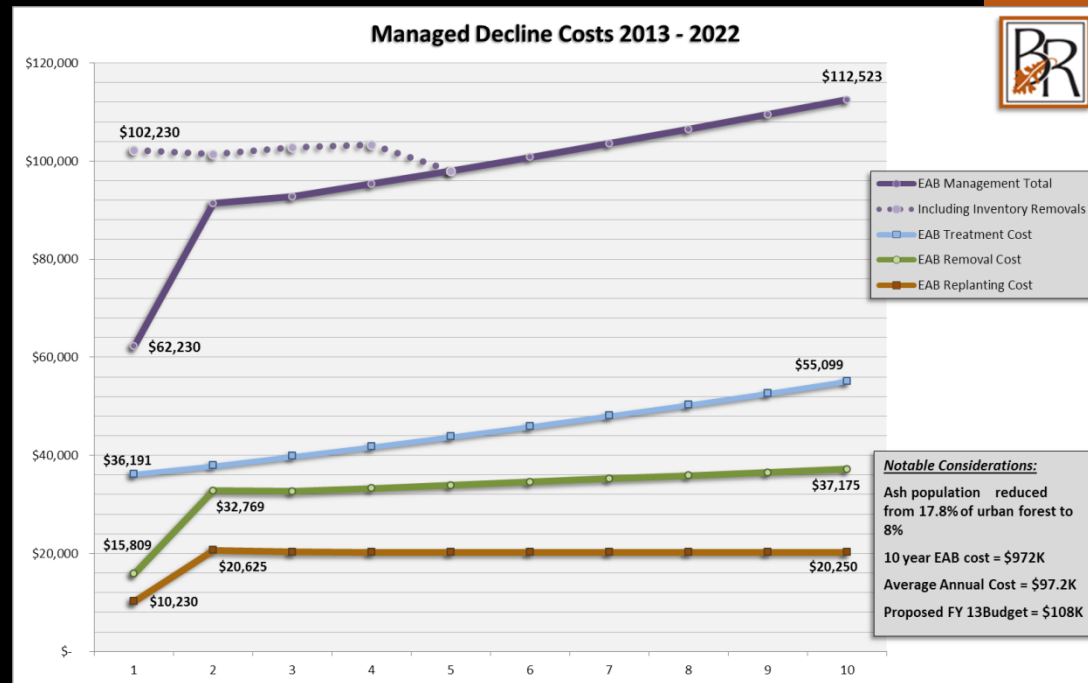


Typical Street, Burr Oaks Glen North



# Conclusion / Recommendation

- An appropriately managed decline may be in the best interest of the Village
  - Decreased cost volatility
  - Preservation of high-value ash
  - Reduction in lower-value ash, movement toward more suitable species representation
- Improved forest diversity through selective removal & replacement
- Most effective use of DPW resources to assist with removals & replacements.



# Managed Decline Success

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## ■ **Keys to Success:**

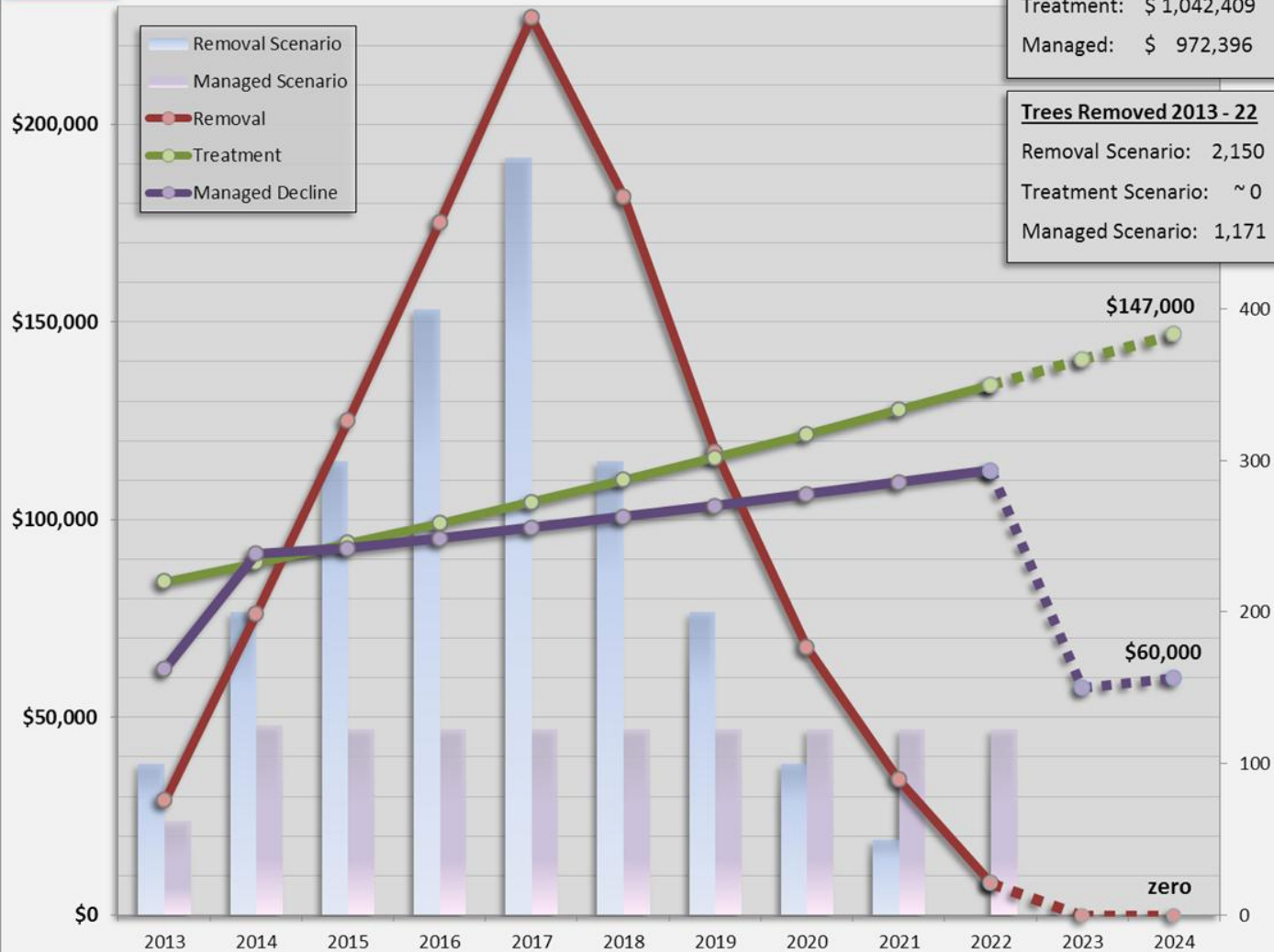
- **Management flexibility to address changing conditions** (mortality, replanting).
- **Robust public information campaign**
  - Village-wide notice/mailing
  - Notice to all HOA contacts
  - HOA meeting presentations
  - Enhanced website
    - Map of all ashes and indication as to whether they will be treated or not
    - Expanded information regarding homeowner treatment alternatives.
- **Coordination/engagement of interested residents and HOA's**
  - Staff ability to coordinate activities directly with stakeholders
  - Ability to coordinate / stage removals in manner that contemplates aesthetics.
  - Resident / HOA ability to treat public ash that do not meet the Village protocol.
  - Coordination of replanting plan for more severely impacted subdivisions



# 10 Year Cost Comparison

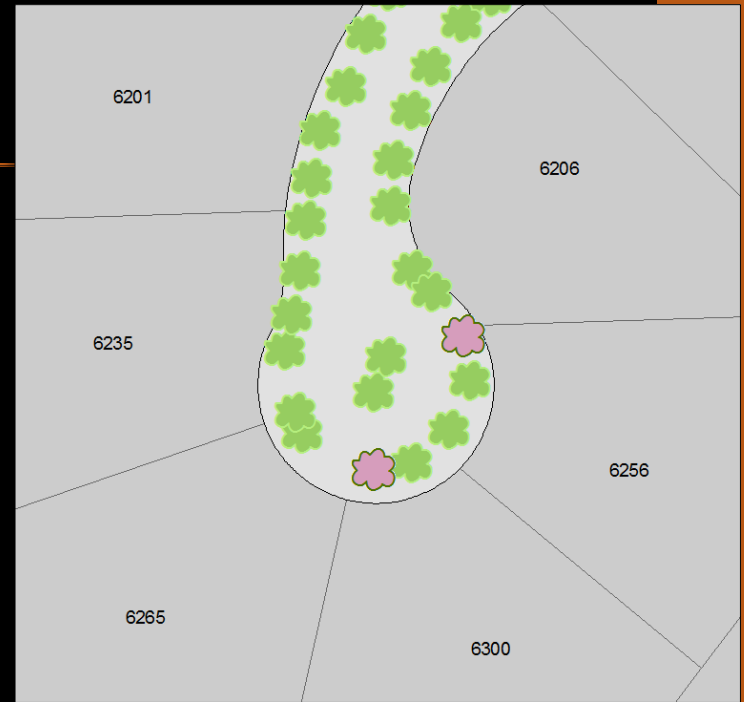


## Scenario Costs: 2013 - 2024



# Next Steps

- Board Determination as to refined protocol
- Preparation of GIS mapping
  - Indication of trees to be treated
  - Indication of “No Action” trees
  - Indication of trees to be removed
- Public Notifications:
  - Letter addressed to each Burr Ridge property owner
  - Letter addressed to each HOA contact
  - Website enhancements
  - HOA meetings
- Staff to commence with long-term management plan
  - Removals by DPW forces
  - Removals by contractor
  - Treatment by contractor
  - Replanting by DPW, supplemented by contractor if necessary
- Ordinance revisions as necessary
  - May no longer be necessary to compel a resident to remove a private infested ash tree based upon crown die-back
  - May be necessary to provide updated ordinance language to allow residents/HOA's to perform approved treatment on Village trees.



## QUESTIONS / DISCUSSION

